

1998 Index

IEEE Transactions on Knowledge and Data Engineering

Vol. 10

This index covers all technical items - papers, correspondence, reviews, etc. that appeared in this periodical during 1998, and items from previous years that were commented upon or corrected in 1998. In the case of magazines, departments and other items may be also covered if they have been judged to have archival value.

The Author Index contains the primary entry for each item, listed under the first author's name. The primary entry includes the coauthors' names, the title of the paper or other item, and its location, specified by the publication abbreviation, year, month, and inclusive pagination. The Subject Index contains entries describing the item under all appropriate subject headings, plus the first author's name, the publication abbreviation, month, and year, and inclusive pages. Subject cross-references are included to assist in finding items of interest. Note that the item title is found only under the primary entry in the Author Index.

AUTHOR INDEX

A

- Ahanger, G.**, and T.D.C. Little. Automatic composition techniques for video production; *T-KDE Nov-Dec 98* 967-987
- Angele, J.**, see Fensel, D., *T-KDE Jul-Aug 98* 527-550
- Ankerst, M.**, H.-P. Kriegel, and T. Seidl. A multistep approach for shape similarity search in image databases; *T-KDE Nov-Dec 98* 996-1004

B

- Baralis, E.**, S. Ceri, and S. Paraboschi. Compile-time and runtime analysis of active behaviors; *T-KDE May-Jun 98* 353-370
- Barron, T.M.**, see Dey, D., *T-KDE Mar-Apr 98* 297-309
- Belussi, A.**, E. Bertino, and B. Catania. An extended algebra for constraint databases; *T-KDE Sep-Oct 98* 686-705
- Benaroch, M.** Goal-directed reasoning with ACE-SSM; *T-KDE Sep-Oct 98* 706-726
- Beneventano, D.**, S. Bergamaschi, S. Lodi, and C. Sartori. Consistency checking in complex object database schemata with integrity constraints; *T-KDE Jul-Aug 98* 576-598
- Bergamaschi, S.**, see Beneventano, D., *T-KDE Jul-Aug 98* 576-598
- Berra, P.B.**, and A. Ghafoor. Data and knowledge management in multimedia systems [intro. to special section, part I]; *T-KDE Nov-Dec 98* 868-871
- Bertino, E.**, S. Jajodia, L. Mancini, and I. Ray. Advanced transaction processing in multilevel secure file stores; *T-KDE Jan-Feb 98* 120-135
- Bertino, E.**, and E. Ferrari. Temporal synchronization models for multimedia data; *T-KDE Jul-Aug 98* 612-631
- Bertino, E.**, E. Ferrari, and G. Guerrini. Navigational accesses in a temporal object model; *T-KDE Jul-Aug 98* 656-665
- Bertino, E.**, see Belussi, A., *T-KDE Sep-Oct 98* 686-705
- Bettini, C.**, X.S. Wang, S. Jajodia, and J.-L. Lin. Discovering frequent event patterns with multiple granularities in time sequences; *T-KDE Mar-Apr 98* 222-237
- Bettini, C.**, X.S. Wang, and S. Jajodia. Temporal semantic assumptions and their use in databases; *T-KDE Mar-Apr 98* 277-296
- Bing Li**, see Tsai, J.J.P., *T-KDE Jan-Feb 98* 91-107
- Bryson, N.**, and A. Mobolurin. A qualitative discriminant approach for generating quantitative belief functions; *T-KDE Mar-Apr 98* 345-348

C

- Candan, K.S.**, P.V. Rangan, and V.S. Subrahmanian. Collaborative multimedia systems: synthesis of media objects; *T-KDE May-Jun 98* 433-457

- Cardenas, A.F.**, see Dionisio, J.D.N., *T-KDE Sep-Oct 98* 746-767
- Cardenas, A.F.**, see Chu, W.W., *T-KDE Nov-Dec 98* 872-888
- Carter, C.L.**, and H.J. Hamilton. Efficient attribute-oriented generalization for knowledge discovery from large databases; *T-KDE Mar-Apr 98* 193-208
- Catania, B.**, see Belussi, A., *T-KDE Sep-Oct 98* 686-705
- Ceri, S.**, see Baralis, E., *T-KDE May-Jun 98* 353-370
- Chakrabarti, K.**, see Ortega, M., *T-KDE Nov-Dec 98* 905-925
- Chakrabarti, P.P.**, see Sarkar, S., *T-KDE Jul-Aug 98* 563-575
- Chang, W.**, G. Sheikholeslami, J. Wang, and A. Zhang. Data resource selection in distributed visual information systems; *T-KDE Nov-Dec 98* 926-946
- Chee Chye Lin**, see Chye Lin Chee, *T-KDE Sep-Oct 98* 824-838
- Chen, F.-C.F.**, and M.H. Dunham. Common subexpression processing in multiple-query processing; *T-KDE May-Jun 98* 493-499
- Chen, H.-H.M.**, see Su, S.Y.W., *T-KDE May-Jun 98* 389-408
- Cheng, A.M.K.**, see Zupan, B., *T-KDE Mar-Apr 98* 238-254
- Chen Ming-Syan**, see Ming-Syan Chen, *T-KDE Mar-Apr 98* 209-221
- Chen YuWei**, see YuWei Chen, *T-KDE Sep-Oct 98* 859-861
- Cherukuri, P.**, see Su, S.Y.W., *T-KDE Jan-Feb 98* 55-75
- Chu, W.W.**, C.C. Hsu, A.F. Cardenas, and R.K. Taira. Knowledge-based image retrieval with spatial and temporal constructs; *T-KDE Nov-Dec 98* 872-888
- Chubb, D.**, see Shekhar, S., *T-KDE Jul-Aug 98* 632-655
- Chye Lin Chee**, Hongjun Lu, Hong Tang, and C.V. Ramamoorthy. Adaptive prefetching and storage reorganization in a log-structured storage system; *T-KDE Sep-Oct 98* 824-838
- Clementini, E.**, and P. Di Felice. Topological invariants for lines; *T-KDE Jan-Feb 98* 38-54
- Cook, J.E.**, A.L. Wolf, and B.G. Zorn. A highly effective partition selection policy for object database garbage collection; *T-KDE Jan-Feb 98* 153-172
- Delis, A.**, and N. Roussopoulos. Techniques for update handling in the enhanced client-server DBMS; *T-KDE May-Jun 98* 458-476
- Dey, D.**, T.M. Barron, and A.N. Saharia. A decision model for choosing the optimal level of storage in temporal databases; *T-KDE Mar-Apr 98* 297-309
- Di Felice, P.**, see Clementini, E., *T-KDE Jan-Feb 98* 38-54
- Di Felice, P.**, and U. Madama. Reducing the storage requirements of a perfect hash function; *T-KDE Nov-Dec 98* 1005-1007
- Dimitrova, N.**, T. McGee, H. Elenbaas, and J. Martino. Video content management in consumer devices; *T-KDE Nov-Dec 98* 988-995
- Dionisio, J.D.N.**, and A.F. Cardenas. A unified data model for representing multimedia, timeline, and simulation data; *T-KDE Sep-Oct 98* 746-767
- Dunham, M.H.**, see Chen, F.-C.F., *T-KDE May-Jun 98* 493-499
- Durfee, E.H.**, see Yokoo, M., *T-KDE Sep-Oct 98* 673-685

D

E

- Elenbaas, H.**, see Dimitrova, N., *T-KDE Nov-Dec 98* 988-995
- Elmagarmid, A.K.**, see Jiang, H., *T-KDE Nov-Dec 98* 947-966
- Etzion, O.**, see Gal, A., *T-KDE Jan-Feb 98* 21-37

F

- Faloutsos, C.**, see Kumar, A., *T-KDE Jan-Feb 98* 1-20
- Faloutsos, C.**, see Korn, P., *T-KDE Nov-Dec 98* 889-904
- Fensel, D.**, J. Angele, and R. Studer. The knowledge acquisition and representation language, KARL; *T-KDE Jul-Aug 98* 527-550
- Ferrari, E.**, see Bertino, E., *T-KDE Jul-Aug 98* 612-631
- Ferrari, E.**, see Bertino, E., *T-KDE Jul-Aug 98* 656-665

G

- Gadia, S.K.**, and S.S. Nair. Algebraic identities and query optimization in a parametric model for relational temporal databases; *T-KDE Sep-Oct 98* 793-807
- Gal, A.**, and O. Etzion. A multiagent update process in a database with temporal data dependencies and schema versioning; *T-KDE Jan-Feb 98* 21-37
- Ghafoor, A.**, see Berra, P.B., *T-KDE Nov-Dec 98* 868-871
- Ghose, S.**, see Sarkar, S., *T-KDE Jul-Aug 98* 563-575
- Gudivada, V.N.** OR-string: A geometry-based representation for efficient and effective retrieval of images by spatial similarity; *T-KDE May-Jun 98* 504-512
- Guerrini, G.**, see Bertino, E., *T-KDE Jul-Aug 98* 656-665

H

- Hamilton, H.J.**, see Carter, C.L., *T-KDE Mar-Apr 98* 193-208
- Hara, T.**, K. Harumoto, M. Tsukamoto, and S. Nishio. Database migration: a new architecture for transaction processing in broadband networks; *T-KDE Sep-Oct 98* 839-854
- Harumoto, K.**, see Hara, T., *T-KDE Sep-Oct 98* 839-854
- Hongjun Lu**, see Chye Lin Chee, *T-KDE Sep-Oct 98* 824-838
- Hong Tang**, see Chye Lin Chee, *T-KDE Sep-Oct 98* 824-838
- Hsu, C.C.**, see Chu, W.W., *T-KDE Nov-Dec 98* 872-888
- Huang, T.S.**, see Ortega, M., *T-KDE Nov-Dec 98* 905-925
- Huang, Y.-W.**, see Jing, N., *T-KDE May-Jun 98* 409-432
- Huang Jing**, see YuWei Chen, *T-KDE Sep-Oct 98* 859-861
- Hyun, S.J.**, see Su, S.Y.W., *T-KDE May-Jun 98* 389-408

I

- Ishida, T.**, see Yokoo, M., *T-KDE Sep-Oct 98* 673-685

J

- Jajodia, S.**, see Bertino, E., *T-KDE Jan-Feb 98* 120-135
- Jajodia, S.**, see Bettini, C., *T-KDE Mar-Apr 98* 222-237
- Jajodia, S.**, see Bettini, C., *T-KDE Mar-Apr 98* 277-296
- Jawadi, R.**, see Su, S.Y.W., *T-KDE Jan-Feb 98* 55-75
- Jensen, C.S.**, see Torp, K., *T-KDE Jul-Aug 98* 599-611
- Jia-Huai You**, see Li-Yan Yuan, *T-KDE Jan-Feb 98* 108-119
- Jiang, H.**, and A.K. Elmagarmid. WVTDB - A semantic content-based video database system on the World Wide Web; *T-KDE Nov-Dec 98* 947-966
- Jing, N.**, Y.-W. Huang, and E.A. Rundensteiner. Hierarchical encoded path views for path query processing: an optimal model and its performance evaluation; *T-KDE May-Jun 98* 409-432
- Jing Huang**, see YuWei Chen, *T-KDE Sep-Oct 98* 859-861
- Jong Soo Park**, see Ming-Syan Chen, *T-KDE Mar-Apr 98* 209-221
- Jong-Yih Kuo**, see Lee, J., *T-KDE Jul-Aug 98* 551-562
- Jung-Hua Wang** Principal interconnections in higher order Hebbian-type associative memories; *T-KDE Mar-Apr 98* 342-344

K

- Kamel, M.**, see Lopez-Suarez, A., *T-KDE Jan-Feb 98* 190-191
- Kemp, D.B.**, and K. Ramamohanarao. Efficient recursive aggregation and negation in deductive databases; *T-KDE Sep-Oct 98* 727-745
- Kian-Lee Tan**, and J. Xu Yu. Generating broadcast programs that support range queries; *T-KDE Jul-Aug 98* 668-672
- Korn, P.**, N. Sidiropoulos, C. Faloutsos, E. Siegel, and Z. Protopapas. Fast and effective retrieval of medical tumor shapes; *T-KDE Nov-Dec 98* 889-904
- Kriegel, H.-P.**, see Ankerst, M., *T-KDE Nov-Dec 98* 996-1004
- Kumar, A.**, V.J. Tsotras, and C. Faloutsos. Designing access methods for bitemporal databases; *T-KDE Jan-Feb 98* 1-20
- Kumar, V.**, see Shekhar, S., *T-KDE Jul-Aug 98* 632-655

- Kuno, H.A.**, and E.A. Rundensteiner. Incremental maintenance of materialized object-oriented views in MultiView: strategies and performance evaluation; *T-KDE Sep-Oct 98* 768-792
- Kuo Jong-Yih**, see Lee, J., *T-KDE Jul-Aug 98* 551-562
- Kuwabara, K.**, see Yokoo, M., *T-KDE Sep-Oct 98* 673-685

L

- Lee, D.L.**, see Lee, W.-C., *T-KDE May-Jun 98* 371-388
- Lee, J.**, and Jong-Yih Kuo. New approach to requirements trade-off analysis for complex systems; *T-KDE Jul-Aug 98* 551-562
- Lee, W.-C.**, and D.L. Lee. Path dictionary: a new access method for query processing in object-oriented databases; *T-KDE May-Jun 98* 371-388
- Leena, J.**, see Manoj, T.V., *T-KDE Jul-Aug 98* 666-667
- Li, Q.**, and F.H. Lochovsky. ADOE: an advanced object modeling environment; *T-KDE Mar-Apr 98* 255-276
- Liberatore, P.**, and M. Schaerf. Arbitration (or how to merge knowledge bases); *T-KDE Jan-Feb 98* 76-90
- Li Bing**, see Tsai, J.J.P., *T-KDE Jan-Feb 98* 91-107
- Lin, J.-L.**, see Bettini, C., *T-KDE Mar-Apr 98* 222-237
- Lin Chee Chye**, see Chye Lin Chee, *T-KDE Sep-Oct 98* 824-838
- Li Qiang**, see Su, S.Y.W., *T-KDE Jan-Feb 98* 55-75
- Little, T.D.C.**, see Ahanger, G., *T-KDE Nov-Dec 98* 967-987
- Li-Yan Yuan**, and Jia-Huai You. Coherence approach to logic program revision; *T-KDE Jan-Feb 98* 108-119
- Lochovsky, F.H.**, see Li, Q., *T-KDE Mar-Apr 98* 255-276
- Lodi, S.**, see Beneventano, D., *T-KDE Jul-Aug 98* 576-598
- Lo Ming-Ling**, see Ming-Ling Lo, *T-KDE Jan-Feb 98* 136-152
- Lopez-Suarez, A.**, and M. Kamel. Reorganizing knowledge to improve performance; *T-KDE Jan-Feb 98* 190-191
- Lu Hongjun**, see Chye Lin Chee, *T-KDE Sep-Oct 98* 824-838

M

- Madama, U.**, see Di Felice, P., *T-KDE Nov-Dec 98* 1005-1007
- Mancini, L.**, see Bertino, E., *T-KDE Jan-Feb 98* 120-135
- Manoj, T.V.**, J. Leena, and R.B. Soney. Knowledge representation using fuzzy Petri nets-revisited; *T-KDE Jul-Aug 98* 666-667
- Mark, L.**, see Torp, K., *T-KDE Jul-Aug 98* 599-611
- Mars, N.J.I.**, see van der Vet, P.E., *T-KDE Jul-Aug 98* 513-526
- Martino, J.**, see Dimitrova, N., *T-KDE Nov-Dec 98* 988-995
- McGee, T.**, see Dimitrova, N., *T-KDE Nov-Dec 98* 988-995
- Mehrotra, S.**, see Ortega, M., *T-KDE Nov-Dec 98* 905-925
- Meng, W.**, C. Yu, W. Wang, and N. Rishe. Performance analysis of three text-join algorithms; *T-KDE May-Jun 98* 477-492
- Ming-Ling Lo**, and C.V. Ravishanker. The design and implementation of seeded trees: an efficient method for spatial joins; *T-KDE Jan-Feb 98* 136-152
- Ming-Syan Chen**, Jong Soo Park, and P.S. Yu. Efficient data mining for path traversal patterns; *T-KDE Mar-Apr 98* 209-221
- Mobolurin, A.**, see Bryson, N., *T-KDE Mar-Apr 98* 345-348
- Moon, B.**, and J.H. Saltz. Scalability analysis of declustering methods for multidimensional range queries; *T-KDE Mar-Apr 98* 310-327
- Moore, T.T.** Objective vs. subjective measures of error-proneness for rule-based programs; *T-KDE Nov-Dec 98* 1008-1014

N

- Nair, S.S.**, see Gadia, S.K., *T-KDE Sep-Oct 98* 793-807
- Nartey, R.**, see Su, S.Y.W., *T-KDE Jan-Feb 98* 55-75
- Ng, W.T.**, see Teorey, T.J., *T-KDE May-Jun 98* 499-503
- Nishio, S.**, see Hara, T., *T-KDE Sep-Oct 98* 839-854

O

- Onyuksei, I.**, see Zabback, P., *T-KDE Sep-Oct 98* 855-858
- Orman, L.V.** Differential relational calculus for integrity maintenance; *T-KDE Mar-Apr 98* 328-341
- Ortega, M.**, Y. Rui, K. Chakrabarti, K. Porkaew, S. Mehrotra, and T.S. Huang. Supporting ranked Boolean similarity queries in MARS; *T-KDE Nov-Dec 98* 905-925

P

- Paraboschi, S.**, *see* Baralis, E., *T-KDE May-Jun 98* 353-370
Park Jong Soo, *see* Ming-Syan Chen, *T-KDE Mar-Apr 98* 209-221
Parsons, S. Addendum to "Current approaches to handling imperfect information in data and knowledge bases" (Jun 96 353-372); *T-KDE Sep-Oct 98* 862
Porkaew, K., *see* Ortega, M., *T-KDE Nov-Dec 98* 905-925
Protopapas, Z., *see* Korn, P., *T-KDE Nov-Dec 98* 889-904

Q

- Qiang Li**, *see* Su, S.Y.W., *T-KDE Jan-Feb 98* 55-75

R

- Ramamohanarao, K.**, *see* Kemp, D.B., *T-KDE Sep-Oct 98* 727-745
Ramamoorthy, C.V., *see* Chye Lin Chee, *T-KDE Sep-Oct 98* 824-838
Rangan, P.V., *see* Candan, K.S., *T-KDE May-Jun 98* 433-457
Raschid, L., *see* Tomasic, A., *T-KDE Sep-Oct 98* 808-823
Ravada, S., *see* Shekhar, S., *T-KDE Jul-Aug 98* 632-655
Ravishankar, C.V., *see* Ming-Ling Lo, *T-KDE Jan-Feb 98* 136-152
Ray, I., *see* Bertino, E., *T-KDE Jan-Feb 98* 120-135
Rishe, N., *see* Meng, W., *T-KDE May-Jun 98* 477-492
Roussopoulos, N., *see* Delis, A., *T-KDE May-Jun 98* 458-476
Rui, Y., *see* Ortega, M., *T-KDE Nov-Dec 98* 905-925
Rundensteiner, E.A., *see* Jing, N., *T-KDE May-Jun 98* 409-432
Rundensteiner, E.A., *see* Kuno, H.A., *T-KDE Sep-Oct 98* 768-792

S

- Saharia, A.N.**, *see* Dey, D., *T-KDE Mar-Apr 98* 297-309
Saltz, J.H., *see* Moon, B., *T-KDE Mar-Apr 98* 310-327
Sarkar, S., P.P. Chakrabarti, and S. Ghose. A framework for learning in search-based systems; *T-KDE Jul-Aug 98* 563-575
Sartori, C., *see* Beneventano, D., *T-KDE Jul-Aug 98* 576-598
Schaerf, M., *see* Liberatore, P., *T-KDE Jan-Feb 98* 76-90
Scheuermann, P., *see* Zabback, P., *T-KDE Sep-Oct 98* 855-858
Seidl, T., *see* Ankerst, M., *T-KDE Nov-Dec 98* 996-1004
Sheikholeslami, G., *see* Chang, W., *T-KDE Nov-Dec 98* 926-946
Shekhar, S., S. Ravada, V. Kumar, D. Chubb, and G. Turner. Declustering and load-balancing methods for parallelizing geographic information systems; *T-KDE Jul-Aug 98* 632-655
Sidiropoulos, N., *see* Korn, P., *T-KDE Nov-Dec 98* 889-904
Siegel, E., *see* Korn, P., *T-KDE Nov-Dec 98* 889-904
Soney, R.B., *see* Manoj, T.V., *T-KDE Jul-Aug 98* 666-667
Soo Park Jong, *see* Ming-Syan Chen, *T-KDE Mar-Apr 98* 209-221
Studer, R., *see* Fensel, D., *T-KDE Jul-Aug 98* 527-550
Su, S.Y.W., R. Jawadi, P. Cherukuri, Qiang Li, and R. Nartey. OSAM*.KBMS/P: a parallel, active, object-oriented knowledge base server; *T-KDE Jan-Feb 98* 55-75
Su, S.Y.W., S.J. Hyun, and H.-H.M. Chen. Temporal association algebra: a mathematical foundation for processing object-oriented temporal databases; *T-KDE May-Jun 98* 389-408
Subrahmanian, V.S., *see* Candan, K.S., *T-KDE May-Jun 98* 433-457

T

- Taira, R.K.**, *see* Chu, W.W., *T-KDE Nov-Dec 98* 872-888
Tang Hong, *see* Chye Lin Chee, *T-KDE Sep-Oct 98* 824-838
Tan Kian-Lee, *see* Kian-Lee Tan, *T-KDE Jul-Aug 98* 668-672
Teorey, T.J., and W.T. Ng. Dependability and performance measures for the database practitioner; *T-KDE May-Jun 98* 499-503
Thomasian, A. Distributed optimistic concurrency control methods for high-performance transaction processing; *T-KDE Jan-Feb 98* 173-189
Tomasic, A., L. Raschid, and P. Valduriez. Scaling access to heterogeneous data sources with DISCO; *T-KDE Sep-Oct 98* 808-823
Torp, K., L. Mark, and C.S. Jensen. Efficient differential timeslice computation; *T-KDE Jul-Aug 98* 599-611

- Tsai, J.J.P.**, Bing Li, and T. Weigert. A logic-based transformation system; *T-KDE Jan-Feb 98* 91-107
Tsostras, V.J., *see* Kumar, A., *T-KDE Jan-Feb 98* 1-20
Tsukamoto, M., *see* Hara, T., *T-KDE Sep-Oct 98* 839-854
Turner, G., *see* Shekhar, S., *T-KDE Jul-Aug 98* 632-655

V

- Valduriez, P.**, *see* Tomasic, A., *T-KDE Sep-Oct 98* 808-823
van der Vet, P.E., and N.J.I. Mars. Bottom-up construction of ontologies; *T-KDE Jul-Aug 98* 513-526

W

- Wang, J.**, *see* Chang, W., *T-KDE Nov-Dec 98* 926-946
Wang, W., *see* Meng, W., *T-KDE May-Jun 98* 477-492
Wang, X.S., *see* Bettini, C., *T-KDE Mar-Apr 98* 222-237
Wang, X.S., *see* Bettini, C., *T-KDE Mar-Apr 98* 277-296
Wang Jung-Hua, *see* Jung-Hua Wang, *T-KDE Mar-Apr 98* 342-344
Weigert, T., *see* Tsai, J.J.P., *T-KDE Jan-Feb 98* 91-107
Welkum, G., *see* Zabback, P., *T-KDE Sep-Oct 98* 855-858
Wolf, A.L., *see* Cook, J.E., *T-KDE Jan-Feb 98* 153-172

X

- Xu Yu, J.**, *see* Kian-Lee Tan, *T-KDE Jul-Aug 98* 668-672

Y

- Yokoo, M.**, E.H. Durfee, T. Ishida, and K. Kuwabara. The distributed constraint satisfaction problem: formalization and algorithms; *T-KDE Sep-Oct 98* 673-685
You Jia-Huai, *see* Li-Yan Yuan, *T-KDE Jan-Feb 98* 108-119
Yu, C., *see* Meng, W., *T-KDE May-Jun 98* 477-492
Yu, P.S., *see* Ming-Syan Chen, *T-KDE Mar-Apr 98* 209-221
Yuan Li-Yan, *see* Li-Yan Yuan, *T-KDE Jan-Feb 98* 108-119
YuWei Chen, and Jing Huang. Effects of update techniques on main memory database system performance; *T-KDE Sep-Oct 98* 859-861

Z

- Zabback, P.**, I. Onyuksei, P. Scheuermann, and G. Welkum. Database reorganization in parallel disk arrays with I/O service stealing; *T-KDE Sep-Oct 98* 855-858
Zhang, A., *see* Chang, W., *T-KDE Nov-Dec 98* 926-946
Zorn, B.G., *see* Cook, J.E., *T-KDE Jan-Feb 98* 153-172
Zupan, B., and A.M.K. Cheng. Optimization of rule-based systems using state space graphs; *T-KDE Mar-Apr 98* 238-254

SUBJECT INDEX

A

Artificial intelligence

- distributed CSP formalization and algms. **Yokoo, M.**, +, *T-KDE Sep-Oct 98* 673-685
 higher order Hebbian-type associative memories, principal interconnections. **Jung-Hua Wang**, *T-KDE Mar-Apr 98* 342-344

Artificial intelligence; cf. Decision support systems; Knowledge based systems; Knowledge representation; Learning systems
Associative memories
 higher order Hebbian-type associative memories, principal interconnections. *Jung-Hua Wang, T-KDE Mar-Apr 98 342-344*
Automata; cf. Finite automata

B

Belief maintenance
 arbitration, merge knowledge bases. *Liberatore, P., +, T-KDE Jan-Feb 98 76-90*
 logic program revision. *Li-Yan Yuan, +, T-KDE Jan-Feb 98 108-119*
 quantitat. belief fns., qualitat. discriminant approach. *Bryson, N., +, T-KDE Mar-Apr 98 345-348*
Biological tissues; cf. Tumors
Biomedical applications of radiation; cf. Biomedical imaging
Biomedical computing; cf. Medical information systems
Biomedical imaging
 fast and effective retrieval of medical tumor shapes. *Korn, P., +, T-KDE Nov-Dec 98 889-904*
 knowledge-based image retrieval with spatial and temporal constructs. *Chu, W.W., +, T-KDE Nov-Dec 98 872-888*
Broadband communication
 database migration, broadband networks transaction proc. archit. *Hara, T., +, T-KDE Sep-Oct 98 839-854*
Broadcasting
 range query support, broadcast program generation. *Kian-Lee Tan, +, T-KDE Jul-Aug 98 668-672*

C

Calculus; cf. Differentiation (mathematics)
Client-server systems
 broadcast program generation for range query support. *Kian-Lee Tan, +, T-KDE Jul-Aug 98 668-672*
 enhanced client-server DBMS, techs. for update handling. *Delis, A., +, T-KDE May-Jun 98 458-476*
Cognitive science
 goal-directed reasoning with ACE-SSM. *Benaroch, M., T-KDE Sep-Oct 98 706-726*
Cognitive science; cf. Belief maintenance
Collaborative work
 multimedia collaborative systs., synthesis of media objs. *Candan, K.S., +, T-KDE May-Jun 98 433-457*
Combinatorial mathematics; cf. Graph theory
Communication systems; cf. Broadband communication; Multimedia communication
Complexity theory
 attribute oriented generalization, knowledge discovery from large DBMSs. *Carter, C.L., +, T-KDE Mar-Apr 98 193-208*
 multimedia databases, image retrieval by spatial similarity. *Gudivada, V.N., T-KDE May-Jun 98 504-512*
Computational geometry
 topol. invariants for lines. *Clementini, E., +, T-KDE Jan-Feb 98 38-54*
Computer fault tolerance
 database migration, broadband networks transaction proc. archit. *Hara, T., +, T-KDE Sep-Oct 98 839-854*
 main memory database syst. perform., update techs. *YuWei Chen, +, T-KDE Sep-Oct 98 859-861*
Computer languages; cf. Logic programming languages; Query languages; Specification languages; Visual languages
Concurrency control
 distributed optimistic concurrency control. *Thomasian, A., T-KDE Jan-Feb 98 173-189*
 enhanced client-server DBMS, techs. for update handling. *Delis, A., +, T-KDE May-Jun 98 458-476*
 multilevel secure file syst., transaction proc. *Bertino, E., +, T-KDE Jan-Feb 98 120-135*
Consumer electronics
 video content mgt. in consumer devices. *Dimitrova, N., +, T-KDE Nov-Dec 98 988-995*

Consumer products; cf. Consumer electronics
Cybernetics; cf. Artificial intelligence

D

Database languages; cf. Query languages
Database management systems
 adaptive prefetching, storage reorganization, log-struct. storage. *Chye Lin Chee, +, T-KDE Sep-Oct 98 824-838*
 main memory database syst. perform., update techs. *YuWei Chen, +, T-KDE Sep-Oct 98 859-861*
 multidimensional range queries, declustering methods, scalability. *Moon, B., +, T-KDE Mar-Apr 98 310-327*
 partition selection policy for obj. database garbage collection. *Cook, J.E., +, T-KDE Jan-Feb 98 153-172*
Database management systems; cf. Database query processing; Distributed database management systems
Database query processing
 fast and effective retrieval of medical tumor shapes. *Korn, P., +, T-KDE Nov-Dec 98 889-904*
 knowledge-based image retrieval with spatial and temporal constructs. *Chu, W.W., +, T-KDE Nov-Dec 98 872-888*
 supporting ranked Boolean similarity queries in MARS. *Ortega, M., +, T-KDE Nov-Dec 98 905-925*
Database reliability
 correction to "Current approaches to handling imperfect information in data and knowledge bases" (Jun 96 353-372). *Parsons, S., T-KDE Sep-Oct 98 862*
Database systems
 alg. identities and query optim., relational temporal databases. *Gadia, S.K., +, T-KDE Sep-Oct 98 793-807*
 attribute oriented generalization, knowledge discovery from large DBMSs. *Carter, C.L., +, T-KDE Mar-Apr 98 193-208*
 correction to "Current approaches to handling imperfect information in data and knowledge bases" (Jun 96 353-372). *Parsons, S., T-KDE Sep-Oct 98 862*
 multimedia, timeline and simul. data representation. *Dionisio, J.D.N., +, T-KDE Sep-Oct 98 746-767*
 recursive aggregation/negation in deductive databases. *Kemp, D.B., +, T-KDE Sep-Oct 98 727-745*
Database systems; cf. Deductive databases; Distributed database systems; Image databases; Multimedia databases; Object oriented databases; Relational databases; Temporal databases
Data handling; cf. Exception handling; Merging
Data models
 data and knowledge management in multimedia systems, part I (special section). *T-KDE Nov-Dec 98 868-1004*
 data and knowledge management in multimedia systems, part I, special section intro. *Berra, P.B., +, T-KDE Nov-Dec 98 868-871*
 knowledge-based image retrieval with spatial and temporal constructs. *Chu, W.W., +, T-KDE Nov-Dec 98 872-888*
 WVTDB, semantic content-based video database syst. on World Wide Web. *Jiang, H., +, T-KDE Nov-Dec 98 947-966*
Data security
 multilevel secure file syst., transaction proc. *Bertino, E., +, T-KDE Jan-Feb 98 120-135*
Data structures
 ADOME, advanced obj. modeling environ. *Li, Q., +, T-KDE Mar-Apr 98 255-276*
 bitemporal databases, access method design. *Kumar, A., +, T-KDE Jan-Feb 98 1-20*
 multiagent update in temporal database. *Gal, A., +, T-KDE Jan-Feb 98 21-37*
 multimedia, timeline and simul. data representation. *Dionisio, J.D.N., +, T-KDE Sep-Oct 98 746-767*
Data structures; cf. Spatial data structures; Tree data structures
Decision support systems
 rule-based systs., optim., state space graph. *Zupan, B., +, T-KDE Mar-Apr 98 238-254*
Deductive databases
 act. behaviors, compile-time/runtime anal. *Baralis, E., +, T-KDE May-Jun 98 353-370*
 arbitration, merge knowledge bases. *Liberatore, P., +, T-KDE Jan-Feb 98 76-90*
 attribute oriented generalization, knowledge discovery from large DBMSs. *Carter, C.L., +, T-KDE Mar-Apr 98 193-208*
 consistency checking in complex OODBMS schemata, integrity constraints. *Beneventano, D., +, T-KDE Jul-Aug 98 576-598*
 frequent event pattern discovery in time seqs. *Bettini, C., +, T-KDE Mar-Apr 98 222-237*

Differentiation (mathematics)

database integrity maint., differential relational calculus. *Orman, L.V.*,
T-KDE Mar-Apr 98 328-341

Digital communication; cf. Digital TV**Digital TV**

automatic composition techs. for video production. *Ahanger, G.*, +,
T-KDE Nov-Dec 98 967-987

Directed graphs; cf. Petri nets**Distributed computing**

CSP formalization and algms. *Yokoo, M.*, +, T-KDE Sep-Oct 98 673-685

database migration, broadband networks transaction proc. archit. *Hara, T.*,
+, T-KDE Sep-Oct 98 839-854

Distributed computing; cf. Client-server systems; Distributed database systems; Distributed memory systems**Distributed database management systems**

database migration, broadband networks transaction proc. archit. *Hara, T.*,
+, T-KDE Sep-Oct 98 839-854

dependability and perform. measures for databases. *Teorey, T.J.*, +,
T-KDE May-Jun 98 499-503

DISCO, scaling access to heterog. data sources. *Tomasic, A.*, +, T-KDE
Sep-Oct 98 808-823

enhanced client-server DBMS, techs. for update handling. *Delis, A.*, +,
T-KDE May-Jun 98 458-476

optimistic concurrency control, high-perform. transaction proc.
Thomasian, A., T-KDE Jan-Feb 98 173-189

parallel database systs., data reorganization. *Zabback, P.*, +, T-KDE
Sep-Oct 98 855-858

path traversal patterns, efficient data mining. *Ming-Syan Chen*, +, T-KDE
Mar-Apr 98 209-221

text-join algms. perform. anal. *Meng, W.*, +, T-KDE May-Jun 98 477-492

Distributed database systems

data resource selection in distributed visual inform. systs. *Chang, W.*, +,
T-KDE Nov-Dec 98 926-946

Distributed memory systems

GIS parallelization via declustering and load balancing methods. *Shekhar,*
S., +, T-KDE Jul-Aug 98 632-655

E**Electronics; cf. Consumer electronics****Exception handling**

multilevel secure file syst., transaction proc. *Bertino, E.*, +, T-KDE
Jan-Feb 98 120-135

Expert systems

rule-based systs., optim., state space graph. *Zupan, B.*, +, T-KDE Mar-Apr
98 238-254

F**Fault tolerance; cf. Computer fault tolerance****File systems**

multidimensional range queries, declustering methods, scalability. *Moon,*
B., +, T-KDE Mar-Apr 98 310-327

path traversal patterns, efficient data mining. *Ming-Syan Chen*, +, T-KDE
Mar-Apr 98 209-221

Finite automata

frequent event pattern discovery in time seqs. *Bettini, C.*, +, T-KDE
Mar-Apr 98 222-237

Fuzzy logic

knowledge representation, hierarchical fuzzy Petri nets. *Manoj, T.V.*, +,
T-KDE Jul-Aug 98 666-667

Fuzzy sets

knowledge representation, hierarchical fuzzy Petri nets. *Manoj, T.V.*, +,
T-KDE Jul-Aug 98 666-667

vague requirements trade-off anal. for complex systs. *Lee, J.*, +, T-KDE
Jul-Aug 98 551-562

G**Geographic information systems**

declustering and load balancing methods for parallelizing GISs. *Shekhar,*
S., +, T-KDE Jul-Aug 98 632-655

path query proc., hierarchical encoded path views. *Jing, N.*, +, T-KDE
May-Jun 98 409-432

Geometry; cf. Computational geometry**Graph theory**

act. behaviors, compile-time/runtime anal. *Baralis, E.*, +, T-KDE May-Jun
98 353-370

multiple-query proc., common subexpression proc. *Chen, F.-C.F.*, +,
T-KDE May-Jun 98 493-499

path query proc., hierarchical encoded path views. *Jing, N.*, +, T-KDE
May-Jun 98 409-432

rule-based systs., optim., state space graph. *Zupan, B.*, +, T-KDE Mar-Apr
98 238-254

Graph theory; cf. Trees (graphs)**H****High-level languages; cf. Logic programming languages; Visual languages****I****Image analysis; cf. Image shape analysis****Image databases**

data and knowledge management in multimedia systems, part I (special
section). T-KDE Nov-Dec 98 868-1004

data and knowledge management in multimedia systems, part I, special
section intro. *Berra, P.B.*, +, T-KDE Nov-Dec 98 868-871

data resource selection in distributed visual inform. systs. *Chang, W.*, +,
T-KDE Nov-Dec 98 926-946

GIS parallelization via declustering and load balancing methods. *Shekhar,*
S., +, T-KDE Jul-Aug 98 632-655

knowledge-based image retrieval with spatial and temporal constructs.
Chu, W.W., +, T-KDE Nov-Dec 98 872-888

multimedia databases, image retrieval by spatial similarity. *Gudivada,*
V.N., T-KDE May-Jun 98 504-512

multimedia, timeline and simul. data representation. *Dionisio, J.D.N.*, +,
T-KDE Sep-Oct 98 746-767

multistep approach for shape similarity search in image databases. *Ankerst,*
M., +, T-KDE Nov-Dec 98 996-1004

path query proc., hierarchical encoded path views. *Jing, N.*, +, T-KDE
May-Jun 98 409-432

seeded trees, efficient method for spatial joins. *Ming-Ling Lo*, +, T-KDE
Jan-Feb 98 136-152

supporting ranked Boolean similarity queries in MARS. *Ortega, M.*, +,
T-KDE Nov-Dec 98 905-925

topol. invariants for lines. *Clementini, E.*, +, T-KDE Jan-Feb 98 38-54

WVTDB, semantic content-based video database syst. on World Wide
Web. *Jiang, H.*, +, T-KDE Nov-Dec 98 947-966

Image processing; cf. Video signal processing**Image representations**

multimedia databases, image retrieval by spatial similarity. *Gudivada,*
V.N., T-KDE May-Jun 98 504-512

Image retrieval; cf. Information retrieval**Image shape analysis**

fast and effective retrieval of medical tumor shapes. *Korn, P.*, +, T-KDE
Nov-Dec 98 889-904

multistep approach for shape similarity search in image databases. *Ankerst,*
M., +, T-KDE Nov-Dec 98 996-1004

Imaging; cf. Biomedical imaging**Indexes**

data resource selection in distributed visual inform. systs. *Chang, W.*, +,
T-KDE Nov-Dec 98 926-946

Inference mechanisms

consistency checking in complex OODBMS schemata, integrity
constraints. *Beneventano, D.*, +, T-KDE Jul-Aug 98 576-598

goal-directed reasoning with ACE-SSM. *Benaroch, M.*, T-KDE Sep-Oct 98
706-726

KARL, knowledge acquisition/representation lang. *Fensel, D.*, +, T-KDE
Jul-Aug 98 527-550

knowledge bases rules reorganization, improve perform. *Lopez-Suarez, A.*,
+, T-KDE Jan-Feb 98 190-191

knowledge representation, hierarchical fuzzy Petri nets. *Manoj, T.V.*, +,
T-KDE Jul-Aug 98 666-667

vague requirements trade-off anal. for complex systs. *Lee, J.*, +, T-KDE
Jul-Aug 98 551-562

Inference mechanisms; cf. Nonmonotonic reasoning**Information retrieval**

fast and effective retrieval of medical tumor shapes. *Korn, P.*, +, T-KDE
Nov-Dec 98 889-904

knowledge-based image retrieval with spatial and temporal constructs. *Chu, W.W.*, +, *T-KDE Nov-Dec 98* 872-888
 multistep approach for shape similarity search in image databases. *Ankerst, M.*, +, *T-KDE Nov-Dec 98* 996-1004
 reducing storage requirements of perfect hash fn. *Di Felice, P.*, +, *T-KDE Nov-Dec 98* 1005-1007
 supporting ranked Boolean similarity queries in MARS. *Ortega, M.*, +, *T-KDE Nov-Dec 98* 905-925
 video content mgt. in consumer devices. *Dimitrova, N.*, +, *T-KDE Nov-Dec 98* 988-995

Information systems; cf. Geographic information systems; Medical information systems

Inheritance

logic-based transform. syst. *Tsai, J.J.P.*, +, *T-KDE Jan-Feb 98* 91-107

Interactive systems; cf. Interactive TV

Interactive TV

automatic composition techs. for video production. *Ahanger, G.*, +, *T-KDE Nov-Dec 98* 967-987
 video content mgt. in consumer devices. *Dimitrova, N.*, +, *T-KDE Nov-Dec 98* 988-995

K

Knowledge acquisition

attribute oriented generalization, knowledge discovery from large DBMSs. *Carter, C.L.*, +, *T-KDE Mar-Apr 98* 193-208
 frequent event pattern discovery in time seqs. *Bettini, C.*, +, *T-KDE Mar-Apr 98* 222-237
 KARL, knowledge acquisition/representation lang. *Fensel, D.*, +, *T-KDE Jul-Aug 98* 527-550
 path traversal patterns, efficient data mining. *Ming-Syan Chen*, +, *T-KDE Mar-Apr 98* 209-221
 quantitat. belief fns., qualit. discriminant approach. *Bryson, N.*, +, *T-KDE Mar-Apr 98* 345-348

Knowledge based systems

ADOME, advanced obj. modeling environ. *Li, Q.*, +, *T-KDE Mar-Apr 98* 255-276
 goal-directed reasoning with ACE-SSM. *Benaroch, M.*, *T-KDE Sep-Oct 98* 706-726
 objective vs. subjective measures of error-proneness for rule-based programs. *Moores, T.T.*, *T-KDE Nov-Dec 98* 1008-1014
 rules reorganization, improve perform. *Lopez-Suarez, A.*, +, *T-KDE Jan-Feb 98* 190-191
 vague requirements trade-off anal. for complex systs. *Lee, J.*, +, *T-KDE Jul-Aug 98* 551-562

Knowledge based systems; cf. Expert systems

Knowledge engineering

ontologies, bottom-up constr. *van der Vet, P.E.*, +, *T-KDE Jul-Aug 98* 513-526

Knowledge engineering; cf. Belief maintenance

Knowledge representation

correction to "Current approaches to handling imperfect information in data and knowledge bases" (Jun 96 353-372). *Parsons, S.*, *T-KDE Sep-Oct 98* 862
 hierarchical fuzzy Petri nets for knowledge representation. *Manoj, T.V.*, +, *T-KDE Jul-Aug 98* 666-667
 KARL, knowledge acquisition/representation lang. *Fensel, D.*, +, *T-KDE Jul-Aug 98* 527-550
 logic-based transform. syst. *Tsai, J.J.P.*, +, *T-KDE Jan-Feb 98* 91-107
 OSAM*. KBMS/P, parallel, act., obj.-oriented knowledge base server. *Su, S.Y.W.*, +, *T-KDE Jan-Feb 98* 55-75

L

Learning systems

search based systs., learning framework. *Sarkar, S.*, +, *T-KDE Jul-Aug 98* 563-575

Learning systems; cf. Neural networks

Logic

KARL, knowledge acquisition/representation lang. *Fensel, D.*, +, *T-KDE Jul-Aug 98* 527-550

Logic; cf. Fuzzy logic; Inference mechanisms; Temporal logic

Logic programming

belief revision, logic programs. *Li-Yan Yuan*, +, *T-KDE Jan-Feb 98* 108-119
 distributed CSP formalization and algs. *Yokoo, M.*, +, *T-KDE Sep-Oct 98* 673-685

relational databases, extended alg. *Belussi, A.*, +, *T-KDE Sep-Oct 98* 686-705

Logic programming languages

KARL, knowledge acquisition/representation lang. *Fensel, D.*, +, *T-KDE Jul-Aug 98* 527-550

Logic programming languages; cf. Prolog

M

Mathematics; cf. Optimization methods

Medical information systems

multimedia, timeline and simul. data representation. *Dionisio, J.D.N.*, +, *T-KDE Sep-Oct 98* 746-767

Memories; cf. Associative memories

Memory management

adaptive prefetching, storage reorganization, log-struct. storage. *Chye Lin Chee*, +, *T-KDE Sep-Oct 98* 824-838
 partition selection policy for obj. database garbage collection. *Cook, J.E.*, +, *T-KDE Jan-Feb 98* 153-172
 reducing storage requirements of perfect hash fn. *Di Felice, P.*, +, *T-KDE Nov-Dec 98* 1005-1007
 temporal database, optimal storage level, decision model. *Dey, D.*, +, *T-KDE Mar-Apr 98* 297-309

Merging

arbitration, merge knowledge bases. *Liberatore, P.*, +, *T-KDE Jan-Feb 98* 76-90

Modeling; cf. Data models

Morphological operations

fast and effective retrieval of medical tumor shapes. *Korn, P.*, +, *T-KDE Nov-Dec 98* 889-904

Multimedia communication

collaborative multimedia systs., synthesis of media objs. *Candan, K.S.*, +, *T-KDE May-Jun 98* 433-457

Multimedia computing

databases, image retrieval by spatial similarity. *Gudivada, V.N.*, *T-KDE May-Jun 98* 504-512
 temporal sync. models for multimedia data. *Bertino, E.*, +, *T-KDE Jul-Aug 98* 612-631
 timeline and simul. data representation. *Dionisio, J.D.N.*, +, *T-KDE Sep-Oct 98* 746-767

Multimedia databases

automatic composition techs. for video production. *Ahanger, G.*, +, *T-KDE Nov-Dec 98* 967-987
 data and knowledge management in multimedia systems, part I (special section). *T-KDE Nov-Dec 98* 868-1004
 data and knowledge management in multimedia systems, part I, special section intro. *Berra, P.B.*, +, *T-KDE Nov-Dec 98* 868-871
 data resource selection in distributed visual inform. systs. *Chang, W.*, +, *T-KDE Nov-Dec 98* 926-946
 fast and effective retrieval of medical tumor shapes. *Korn, P.*, +, *T-KDE Nov-Dec 98* 889-904
 knowledge-based image retrieval with spatial and temporal constructs. *Chu, W.W.*, +, *T-KDE Nov-Dec 98* 872-888
 multistep approach for shape similarity search in image databases. *Ankerst, M.*, +, *T-KDE Nov-Dec 98* 996-1004
 supporting ranked Boolean similarity queries in MARS. *Ortega, M.*, +, *T-KDE Nov-Dec 98* 905-925
 video content mgt. in consumer devices. *Dimitrova, N.*, +, *T-KDE Nov-Dec 98* 988-995
 WVTDB, semantic content-based video database syst. on World Wide Web. *Jiang, H.*, +, *T-KDE Nov-Dec 98* 947-966

Multimedia systems; cf. Multimedia communication; Multimedia computing; Multimedia databases

Multiprocessing; cf. Distributed memory systems; Neural networks

N

Networks; cf. Neural networks; Petri nets

Neural networks

higher order Hebbian-type associative memories, principal interconnections. *Jung-Hua Wang*, *T-KDE Mar-Apr 98* 342-344

Nonmonotonic reasoning

logic-based transform. syst. *Tsai, J.J.P.*, +, *T-KDE Jan-Feb 98* 91-107

O

Object oriented databases

- ADOME, advanced obj. modeling environ. *Li, Q.*, +, *T-KDE Mar-Apr 98* 255-276
- consistency checking in complex OODBMS schemata, integrity constraints. *Beneventano, D.*, +, *T-KDE Jul-Aug 98* 576-598
- maint. of materialized obj.-oriented views in MultiView. *Kuno, H.A.*, +, *T-KDE Sep-Oct 98* 768-792
- OSAM*.KBMS/P, parallel, act., obj.-oriented knowledge base server. *Su, S.Y.W.*, +, *T-KDE Jan-Feb 98* 55-75
- partition selection policy for obj. database garbage collection. *Cook, J.E.*, +, *T-KDE Jan-Feb 98* 153-172
- query proc. by path dictionary index. *Lee, W.-C.*, +, *T-KDE May-Jun 98* 371-388
- temporal databases proc., temporal assoc. alg. *Su, S.Y.W.*, +, *T-KDE May-Jun 98* 389-408
- temporal obj. model, navig. accesses. *Bertino, E.*, +, *T-KDE Jul-Aug 98* 656-665

Object oriented programming

- ADOME, advanced obj. modeling environ. *Li, Q.*, +, *T-KDE Mar-Apr 98* 255-276

Optimization methods

- rule-based systs., optim., state space graph. *Zupan, B.*, +, *T-KDE Mar-Apr 98* 238-254

P

Parallel programming

- GIS parallelization via declustering and load balancing methods. *Shekhar, S.*, +, *T-KDE Jul-Aug 98* 632-655

Pattern matching

- knowledge bases rules reorganization, improve perform. *Lopez-Suarez, A.*, +, *T-KDE Jan-Feb 98* 190-191

Petri nets

- knowledge representation, hierarchical fuzzy Petri nets. *Manoj, T.V.*, +, *T-KDE Jul-Aug 98* 666-667

Problem-solving

- distributed CSP formalization and algms. *Yokoo, M.*, +, *T-KDE Sep-Oct 98* 673-685
- goal-directed reasoning with ACE-SSM. *Benaroch, M.*, *T-KDE Sep-Oct 98* 706-726
- learning framework for search based systs. *Sarkar, S.*, +, *T-KDE Jul-Aug 98* 563-575

Process algebra; cf. Relational algebra**Program interpreters**

- KARL, knowledge acquisition/representation lang. *Fensel, D.*, +, *T-KDE Jul-Aug 98* 527-550

Programming; cf. Logic programming; Object oriented programming; Parallel programming**Program processors; cf. Program interpreters****Prolog**

- objective vs. subjective measures of error-proneness for rule-based programs. *Moore, T.T.*, *T-KDE Nov-Dec 98* 1008-1014

Q

Query languages

- knowledge-based image retrieval with spatial and temporal constructs. *Chu, W.W.*, +, *T-KDE Nov-Dec 98* 872-888
- multimedia, timeline and simul. data representation. *Dionisio, J.D.N.*, +, *T-KDE Sep-Oct 98* 746-767
- temporal obj. model, navig. accesses. *Bertino, E.*, +, *T-KDE Jul-Aug 98* 656-665
- temporal semantic assumptions and their in databases. *Bettini, C.*, +, *T-KDE Mar-Apr 98* 277-296

Queuing analysis

- parallel database systs., data reorganization. *Zaback, P.*, +, *T-KDE Sep-Oct 98* 855-858

R

Real time systems

- rule-based systs., optim., state space graph. *Zupan, B.*, +, *T-KDE Mar-Apr 98* 238-254

Relational algebra

- constraint relational databases, extended alg. *Belussi, A.*, +, *T-KDE Sep-Oct 98* 686-705
- database integrity maint., differential relational calculus. *Orman, L.V.*, *T-KDE Mar-Apr 98* 328-341

Relational databases

- alg. identities and query optim., relational temporal databases. *Gadia, S.K.*, +, *T-KDE Sep-Oct 98* 793-807
- constraint relational databases, extended alg. *Belussi, A.*, +, *T-KDE Sep-Oct 98* 686-705
- integrity maint., differential relational calculus. *Orman, L.V.*, *T-KDE Mar-Apr 98* 328-341

Reliability; cf. Database reliability; Software reliability**Resource management**

- GIS parallelization via declustering and load balancing methods. *Shekhar, S.*, +, *T-KDE Jul-Aug 98* 632-655
- parallel database systs., data reorganization. *Zaback, P.*, +, *T-KDE Sep-Oct 98* 855-858

S

Search methods

- learning framework for search based systs. *Sarkar, S.*, +, *T-KDE Jul-Aug 98* 563-575

Security; cf. Data security**Sensitivity**

- path traversal patterns, efficient data mining. *Ming-Syan Chen*, +, *T-KDE Mar-Apr 98* 209-221

Set theory; cf. Fuzzy sets; Morphological operations**Signal processing; cf. Video signal processing****Signal representations; cf. Image representations****Software; cf. Database management systems****Software debugging**

- act. behaviors, compile-time/runtime anal. *Baralis, E.*, +, *T-KDE May-Jun 98* 353-370

Software engineering; cf. Software requirements and specifications**Software metrics**

- objective vs. subjective measures of error-proneness for rule-based programs. *Moore, T.T.*, *T-KDE Nov-Dec 98* 1008-1014

Software performance

- main memory database syst. perform., update techs. *YuWei Chen*, +, *T-KDE Sep-Oct 98* 859-861
- parallel database systs., data reorganization. *Zaback, P.*, +, *T-KDE Sep-Oct 98* 855-858

Software reliability

- database dependability and perform. measures. *Teorey, T.J.*, +, *T-KDE May-Jun 98* 499-503

Software reliability; cf. Software debugging**Software requirements and specifications**

- KARL, knowledge acquisition/representation lang. *Fensel, D.*, +, *T-KDE Jul-Aug 98* 527-550
- temporal sync. models for multimedia data. *Bertino, E.*, +, *T-KDE Jul-Aug 98* 612-631

Software verification and validation

- act. behaviors, compile-time/runtime anal. *Baralis, E.*, +, *T-KDE May-Jun 98* 353-370
- temporal obj. model, navig. accesses. *Bertino, E.*, +, *T-KDE Jul-Aug 98* 656-665

Spatial data structures

- seeded trees, efficient method for spatial joins. *Ming-Ling Lo*, +, *T-KDE Jan-Feb 98* 136-152

Special issues and sections

- data and knowledge management in multimedia systems, part I (special section). *T-KDE Nov-Dec 98* 868-1004
- data and knowledge management in multimedia systems, part I, special section intro. *Berra, P.B.*, +, *T-KDE Nov-Dec 98* 868-871

Specification languages

- logic-based transform. syst. *Tsai, J.J.P.*, +, *T-KDE Jan-Feb 98* 91-107

State space methods

- rule-based systs., optim., state space graph. *Zupan, B.*, +, *T-KDE Mar-Apr 98* 238-254

Stochastic processes; cf. Queuing analysis

Synchronization

temporal sync. models for multimedia data. *Bertino, E.*, + , *T-KDE Jul-Aug 98* 612-631

System analysis and design

vague requirements trade-off anal. for complex systs. *Lee, J.*, + , *T-KDE Jul-Aug 98* 551-562

T

Temporal databases

bitemporal databases, access method design. *Kumar, A.*, + , *T-KDE Jan-Feb 98* 1-20

differential timeslice computation. *Torp, K.*, + , *T-KDE Jul-Aug 98* 599-611

frequent event pattern discovery in time seqs. *Bettini, C.*, + , *T-KDE Mar-Apr 98* 222-237

multiagent update in temporal database. *Gal, A.*, + , *T-KDE Jan-Feb 98* 21-37

navig. accesses in temporal obj. model. *Bertino, E.*, + , *T-KDE Jul-Aug 98* 656-665

obj.-oriented temporal databases proc., temporal assoc. alg. *Su, S.Y.W.*, + , *T-KDE May-Jun 98* 389-408

optimal storage level, decision model. *Dey, D.*, + , *T-KDE Mar-Apr 98* 297-309

semantic assumptions and their in temporal databases. *Bettini, C.*, + , *T-KDE Mar-Apr 98* 277-296

Temporal logic

frequent event pattern discovery in time seqs. *Bettini, C.*, + , *T-KDE Mar-Apr 98* 222-237

multimedia data, temporal sync. models. *Bertino, E.*, + , *T-KDE Jul-Aug 98* 612-631

semantic assumptions and their in temporal databases. *Bettini, C.*, + , *T-KDE Mar-Apr 98* 277-296

temporal obj. model, navig. accesses. *Bertino, E.*, + , *T-KDE Jul-Aug 98* 656-665

Timing

rule-based systs., optim., state space graph. *Zupan, B.*, + , *T-KDE Mar-Apr 98* 238-254

Topology

geometric scenes, topol. invariants for lines. *Clementini, E.*, + , *T-KDE Jan-Feb 98* 38-54

Tree data structures

differential timeslice computation. *Torp, K.*, + , *T-KDE Jul-Aug 98* 599-611

seeded trees, efficient method for spatial joins. *Ming-Ling Lo*, + , *T-KDE Jan-Feb 98* 136-152

Trees (graphs)

differential timeslice computation. *Torp, K.*, + , *T-KDE Jul-Aug 98* 599-611

Trees (graphs); cf. Tree data structures

Tumors

fast and effective retrieval of medical tumor shapes. *Korn, P.*, + , *T-KDE Nov-Dec 98* 889-904

TV; cf. Digital TV; Interactive TV

U

Uncertainty

correction to "Current approaches to handling imperfect information in data and knowledge bases" (Jun 96 353-372). *Parsons, S.*, *T-KDE Sep-Oct 98* 862

knowledge representation, hierarchical fuzzy Petri nets. *Manoj, T.V.*, + , *T-KDE Jul-Aug 98* 666-667

vague requirements trade-off anal. for complex systs. *Lee, J.*, + , *T-KDE Jul-Aug 98* 551-562

V

Video databases; cf. Image databases

Video retrieval; cf. Information retrieval

Video signal processing

data and knowledge management in multimedia systems, part I (special section). *T-KDE Nov-Dec 98* 868-1004

data and knowledge management in multimedia systems, part I, special section intro. *Berra, P.B.*, + , *T-KDE Nov-Dec 98* 868-871

Visual languages

knowledge-based image retrieval with spatial and temporal constructs. *Chu, W.W.*, + , *T-KDE Nov-Dec 98* 872-888

multimedia, timeline and simul. data representation. *Dionisio, J.D.N.*, + , *T-KDE Sep-Oct 98* 746-767



Online Catalog

- Browse
- Search
- Preview
- Shop
- Secure Ordering
- Orders Shipped in 24 hours

<http://computer.org>

IEEE Computer Society

10662 Los Vaqueros Circle
Los Alamitos, CA 90720-1314

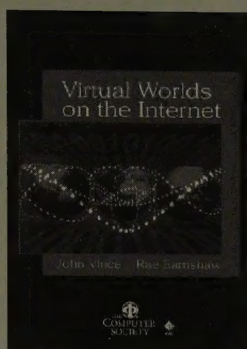
Toll-free +1 800.CS.BOOKS

Phone +1 714.821.8380

Fax +1 714.821.4641

csbooks@computer.org

<http://computer.org>



Virtual Worlds on the Internet

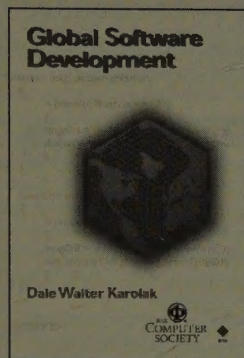
John Vince and Rae Earnshaw



In recent years, computer graphics has evolved into four major disciplines: computer animation, image processing, visualization, and virtual reality. Now these technologies are converging into one seamless digital medium resulting in various tools that will transform the way we work in the next century.

Virtual Worlds on the Internet examines how the latest developments in virtual environments, computer animation, communication networks, and the Internet are being configured to create revolutionary tools and systems. Vince and Earnshaw have selected twenty papers they believe will influence computer systems of the twenty-first century.

360 pages. 7" x 10" Softcover. January 1999. ISBN 0-8186-8700-2
Catalog # BP08700 — \$44.00 Members / \$55.00 List



Global Software Development Managing Virtual Teams and Environments

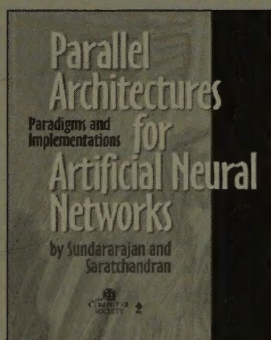
by Dale Walter Karolak



Global Software Development covers the delicate tasks of managing diverse cultural expectations, establishing responsibility, implementing accountability, and defining process and product ownership. Subtle changes in the cost, schedule, and quality issues involved in normal product delivery are also examined. Although focused on global development projects, the book discusses issues that apply to most distributed software development environments.

Following the life cycle of a typical software development project, the text examines the growing need for global software development and the foundations of its strategy. From setting up the initial environment and project team, the book progresses through every development stage emphasizing the differences between traditional and virtual management. The final chapter presents three case studies illustrating the principles and activities described in the preceding chapters.

152 pages. 6" x 9" Softcover. December 1998. ISBN 0-8186-8701-0
Catalog # BP08701 — \$35.00 Members / \$40.00 List



Parallel Architectures for Artificial Neural Networks Paradigms and Implementations

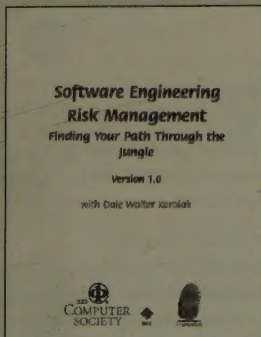
N. Sundararajan and P. Saratchandran



An excellent reference for neural networks research and application, this book covers the parallel implementation aspects of all major artificial neural network models in a single text. *Parallel Architectures for Artificial Neural Networks* details implementations on various processor architectures built on different hardware platforms, ranging from large, general purpose parallel computers to custom built MIMD machines.

Working experts describe their implementation research and results on the theoretical analysis of parallel implementation schemes on MIMD message passing machines, parallel implementation of BP neural networks on general purpose, large, parallel computers, and four specific purpose parallel neural computer configurations. Aimed at graduate students and researchers working in artificial neural networks and parallel computing, this text can be used by graduate level educators to illustrate parallel computing methods for ANN simulation.

410 pages. 7" x 10" Hardcover. November 1998. ISBN 0-8186-8399-6
Catalog # BP08399 — \$60.00 Members / \$70.00 List



Software Engineering Risk Management (SERIM) Version 1.0 for Windows 95

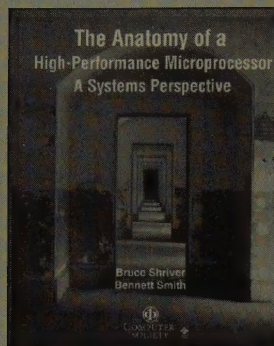
with Dale Walter Karolak



By taking periodic "readings" on the status of software development projects, SERIM allows the developer to focus on high-priority risk areas. After identifying possible risks, SERIM helps develop proactive plans for mitigating risk before it can sabotage a project. SERIM may also be used in the pre-requirements phase to develop risk projections that help plan projects more realistically.

This interactive, easy-to-use Windows application is an automated way to quickly determine the risks of any software project during all stages of development. The product is based on the SERIM model in the best selling book *Software Engineering Risk Management*.

CD-ROM / Reference Guide: 176 pages. 6" x 9" June 1998. ISBN 0-8186-7970-0.
Catalog # SW07970 — \$180.00 Members / \$210.00 List
LearnerFirst® Software



The Anatomy of a High-Performance Microprocessor A Systems Perspective (Interactive Book & CD-ROM)

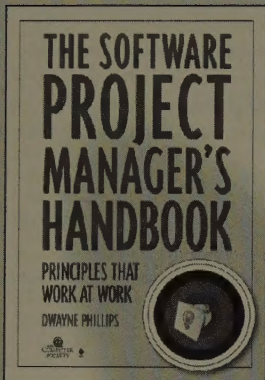
by Bruce Shriver and Bennett Smith

Now in Stock

This work describes in detail the microarchitecture of a high-performance microprocessor, giving an integrated treatment of platform and systems issues relating to the design and implementation of microprocessor-based systems. Unique in content and approach, the accompanying interactive CD-ROM provides multiple books and a wide variety of materials.

Shriver and Smith use AMD's K6 3D® microprocessor as the "case study" basis for discussions on microarchitecture issues and they use increasingly important industry specifications and standards for platforms and systems issues. This book is an important reference for individuals building systems using microprocessors and readers looking for significant insights into fundamental design guidelines that transcend the design, implementation, and use of a specific microprocessor.

584 pages. 8" x 10" Hardcover / CD-ROM. July 1998. ISBN 0-8186-8400-3
Catalog # BP08400 — \$44.00 Members / \$49.00 List



The Software Project Manager's Handbook Principles that Work at Work

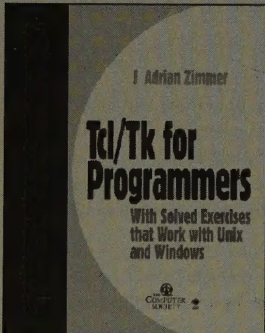
by Dwayne Phillips

Now in Stock

Software project managers and their team members work individually towards a common goal. This book guides both, emphasizing basic principles that work at work. Software at work should be pleasant and productive, not just one or the other.

This book emphasizes software project management at work. The author's unique approach concentrates on the concept that success on software projects has more to do with how people think individually and in groups than with programming. He summarizes past successful projects and why others failed. Visibility and communication are more important than SQL and C. The book discusses the technical and people aspects of software and how they relate to one another.

408 pages. 7" x 10" Softcover. June 1998. ISBN 0-8186-8300-7.
Catalog # BP08300 — \$35.00 Members / \$40.00 List



Tcl/Tk for Programmers with Solved Exercises that Work with Unix and Windows

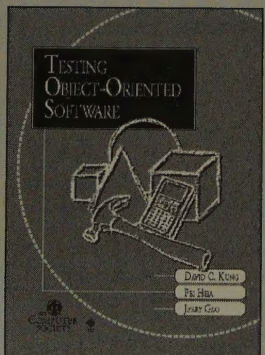
by J. Adrian Zimmer

Now in Stock

This introduction to Tcl/Tk bridges the gaps between introductions, comprehensive manuals, and collections of scripts that solve particular problems. There are over 200 exercises with solutions that run on both Unix and Windows platforms.

Tcl/Tk for Programmers is an introduction to the high-level Tcl/Tk scripting language for experienced programmers with either a Unix or Windows background. The book includes a short introduction to TCP/IP as well as instructions on writing client-side scripts, GUI interfaces, and integrating scripts with C/C++. After the delivery of version 8.0/8.0, the unusually fast development of Tcl/Tk slowed to a more normal pace. *Tcl/Tk for Programmers* covers this version while describing its major differences with the previous version, 7.6/4.2, and the experimental alpha version, 8.1/8.1.

560 pages. 7" x 10" Softcover. September 1998. ISBN 0-8186-8515-8.
Catalog # BP08515 — \$35.00 Members / \$45.00 List



Testing Object-Oriented Software

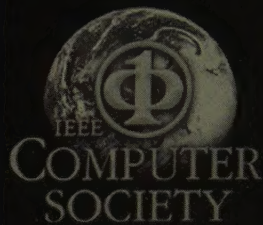
David C. Kung, Pei Hsia, and Jerry Gao

Now in Stock

Object-oriented programming increases software reusability, extensibility, interoperability, and reliability. Software testing is necessary to realize these benefits by uncovering as many programming errors as possible at a minimum cost. A major challenge to the software engineering community remains how to reduce the cost while improving the quality of software testing.

Testing Object-Oriented Software illustrates these differences and discusses object-oriented software testing problems, focusing on the difficulties and challenges testers face. The book provides a general framework for class- and system-level testing and examines object-oriented design criteria and high testability metrics. It offers object-oriented testing techniques, ideas and methods for unit testing, and object-oriented program integration-testing strategy.

288 pages. 8 1/2" x 11" Softcover. October 1998. ISBN 0-8186-8520-4
Catalog # BP08520 — \$30.00 Members / \$40.00 List



Online Catalog

- Browse
- Search
- Preview
- Shop
- Secure Ordering
- Orders Shipped in 24 hours

<http://computer.org>

IEEE Computer Society

10662 Los Vaqueros Circle
Los Alamitos, CA 90720-1314

Toll-free +1 800.CS.BOOKS

Phone +1 714.821.8380

Fax +1 714.821.4641

csbooks@computer.org

<http://computer.org>

Information for Authors

Audience and Content

The *IEEE Transactions on Knowledge and Data Engineering (TKDE)* is an archival journal published bimonthly. The information published in this transactions is designed to inform researchers, developers, managers, strategic planners, users, and others interested in state-of-the-art and state-of-the-practice activities in the knowledge and data engineering area. We are interested in well-defined theoretical results and empirical studies that have potential impact on the acquisition, management, storage, and graceful degeneration of knowledge and data, as well as in provision of knowledge and data services. We welcome treatments of the role of knowledge and data in the development and use of information systems and in the simplification of software and hardware development and maintenance. Since the journal is archival, it is assumed that the ideas presented are important, have been well analyzed and/or empirically validated, and are of value to the knowledge and data engineering research community.

Specific topics include, but are not limited to: a) artificial intelligence techniques, including speech, voice, graphics, images, and documents; b) knowledge and data engineering tools and techniques; c) parallel and distributed processing; d) real-time distributed; e) system architectures, integration, and modeling; f) database design, modeling and management; g) query design and implementation languages; h) distributed database control; i) algorithms for data and knowledge management; j) performance evaluation of algorithms and systems; k) data communications aspects; l) system applications and experience; m) knowledge-based and expert systems; and, n) integrity, security, and fault tolerance. For a list of current areas published in *TKDE*, refer to the editorial in the February 1994 issue.

Submission Policy

Papers that may be submitted for consideration include those that have not been previously published in another journal, or are not currently being published or reviewed by another journal or conference, as well as those that have been published in conference proceedings, digests, and records and that have undergone substantial revision.

Papers are published in *TKDE* as *regular* papers, *concise* papers, or *correspondence*. A *regular* paper usually reports the results of original research. The title, abstract, introduction, and summary should be sufficiently informative to make the contributions of the paper clear to the broadest possible audience, and to place them in context with related work. A *concise* paper presents results that are important and original and are presented in concise form; and, a *correspondence* is used to convey only a few principal ideas or to comment on work previously published in this transactions.

As part of regular papers, we solicit research *surveys* that present new taxonomies, research issues, and current directions on a specific topic in the knowledge and data engineering areas. Each should have an extensive bibliography that is useful for experts working in the area, and should not be tutorial in nature. As part of correspondences, we solicit *correspondences on recent developments* that describe recent results, prototypes, and new developments whose timely publication is important.

The author is responsible for obtaining any necessary copyright releases for material which has been published previously, as well as all required corporate and security clearances prior to submitting material for consideration. It is the IEEE's policy (Policy 6.16) to assume that all clearances have been received by the author by the time a paper is submitted for publication.

Process for Submission of a Technical Paper and/or Proposal of a Special Issue

Delays in publication are minimized by carefully preparing manuscripts according to the following guidelines:

- 1) For papers and correspondence, send *six* copies of the manuscript to Manuscript Assistant, *TKDE*, IEEE Computer Society, 10662 Los Vaqueros Circle, PO Box 3014, Los Alamitos, CA 90720-1314 USA. Each copy should include illustrations, abstract, index terms, and biographies. Good photocopies of the illustrations may be used for the initial manuscript review. Original illustrations should be submitted with the final accepted version. Artwork is not returned.
- 2) Enclose a signed IEEE copyright transfer form with the manuscript.
- 3) Enclose a separate page giving your telephone number, fax number, e-mail address, and preferred address for correspondence.
- 4) The manuscript will be forwarded to one of the associate editors and the contact author will be notified. The associate editor will complete the review process and will correspond directly with the author regarding processing of the manuscript.
- 5) The referee process assures anonymity of reviewers of all papers. It is also possible to provide a blind review in which the author's identity is unknown to the reviewers. If you wish blind processing,

inform the editor-in-chief in your cover letter and ensure that your name appears only on a removable cover page.

6) For proposals of a Special Issue, contact the editor-in-chief for approval and directions. A special form for preparing such proposals is available by anonymous ftp from manip.crhc.uiuc.edu (128.174.197.211) in directory /pub/tkde.

Style for Manuscript

1) Text should be typewritten or printed from a laser printer, double-spaced in 10-point type or larger, on *one side only* of 8.5-inch x 11-inch or A4 white paper with margins of at least one inch on all four sides. All pages must be numbered sequentially.

2) There is a strict size limitation for all submissions. The limits are 35 pages for regular papers, 40 pages for surveys, 12 pages for concise papers, and 4 pages for correspondences, including illustrations. (A double spaced page is a page with 10-point fonts and 18-point vertical spacing).

3) At the head of the manuscript, provide a 100-200 word abstract for a regular paper, a 100-150 word abstract for a concise paper, and a 50 or less word abstract for a correspondence. Abstracts are published with the articles.

4) Provide from 5 to 10 index terms at the head of the manuscript below the abstract; and on a separate page.

5) Provide a separate double-spaced sheet listing all footnotes, beginning with "Affiliation of Author" data. Acknowledgment of financial support may be given if appropriate. Include mailing addresses and e-mail addresses for all authors.

6) All figures must be numbered and cited in the text, and have descriptive captions. Annotations in the figures should be large enough to be legible after reduction to a 3.5" width.

7) Originals for illustrations (including tables) should be sharp, noise-free, and of good contrast. We regret we cannot provide drafting or art services. Line drawings should be in black ink on white background. Use 8 1/2 x 11 inch sheets (or A4) if possible to simplify handling of the manuscript. On graphs, show only the coordinate axes, or at most major grid lines, to avoid a dense, hard-to-read result. All lettering should be large enough to permit legible reduction of the figure to column width, perhaps as much as 4 to 1. Photographs should be glossy prints, of good contrast and gradation, and any reasonable size. Number each original on the back, or at the bottom of the front.

8) References should appear in a separate bibliography at the end of the paper, with items referred to by numerals in square brackets. References should be complete, in IEEE style, and should be accessible to readers.

Style for Papers: Author(s), first initials followed by last name (do not use *et al.*), title in quotation marks, periodical, volume, inclusive page numbers, month, and year.

Style for Books: Author(s), first initials followed by last name, title, edition. Location: publisher, year, chapter, and page numbers. (See this issue for examples.)

9) Further style information is available on the Computer Society's Web site at <http://computer.org/pubs/transguide/intro.htm>.

Final Manuscript Submission

All papers in IEEE Computer Society transactions are edited electronically. When your paper is accepted for publication, you will be asked to supply an electronic version that exactly matches the final, accepted hard copy, including abstract, index terms, and biographies. As a result, manuscripts should be created in a text processing program such as TeX, LaTeX, troff, Word, WordPerfect, or a program that will produce ASCII files. Do *not* use page layout programs such as Ventura or PageMaker.

Send original illustrations. Provide a separate sheet listing all figure captions, in proper style for the page layout, e.g., "Fig. 1. Example of a disjoint and distraught manifold."

Provide a technical biography and a photograph of each author of the paper. These will be required and published in full papers but not in concise papers or correspondences.

Page Charges and Reprints

After a manuscript is accepted for publication, the author's company or institution is requested to pay a charge of \$110 per printed page to cover part of the cost of the publication. Page charges for the IEEE Computer Society transactions are not obligatory nor is their payment a prerequisite for publication. The author will receive 100 free reprints if the charge is honored. Detailed instructions on paying page charges or ordering reprints are sent to authors at the time the manuscript is prepared for publication. Administration of page charges is handled by the Computer Society Publications Office in Los Alamitos, California.

PURPOSE The IEEE Computer Society is the world's largest association of computing professionals, and is the leading provider of technical information in the field.

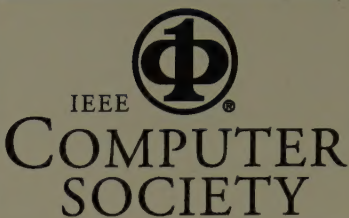
MEMBERSHIP Members receive the monthly magazine **COMPUTER**, discounts, and opportunities to serve (all activities are led by volunteer members). Membership is open to all IEEE members, affiliate society members, and others interested in the computer field.

COMPUTER SOCIETY WEB SITE

The IEEE Computer Society's Web site, at <http://computer.org>, offers information and samples from the society's publications and conferences, as well as a broad range of information about technical committees, standards, student activities, and more.

OMBUDSMAN Members experiencing problems—magazine delivery, membership status, or unresolved complaints—may write to the ombudsman at the Publications Office or send an e-mail to membership@computer.org.

CHAPTERS Regular and student chapters worldwide provide the opportunity to interact with colleagues, hear technical experts, and serve the local professional community.



AVAILABLE INFORMATION

To obtain more information on any of the following, contact the Publications Office:

- Membership applications
- Publications catalog
- Draft standards and order forms
- Technical committee list
- Technical committee application
- Chapter start-up procedures
- Student scholarship information
- Volunteer leaders/staff directory
- IEEE senior member grade application (requires 10 years practice and significant performance in five of those 10)

To check membership status or report a change of address, call the IEEE toll-free number, (800) 678-4333. Direct all other Computer Society-related questions to the Publications Office.

PUBLICATIONS AND ACTIVITIES

Computer. An authoritative, easy-to-read magazine containing tutorial and in-depth articles on topics across the computer field, plus news, conferences, calendar, industry trends, and product reviews.

Periodicals. The society publishes 11 magazines and eight research transactions. Refer to membership application or request information as noted at left.

Conference Proceedings, Tutorial Texts, Standards Documents. The Computer Society Press publishes more than 150 titles every year.

Standards Working Groups. More than 200 of these groups produce IEEE standards used throughout the industrial world.

Technical Committees. Thirty TCs publish newsletters, provide interaction with peers in specialty areas, and directly influence standards, conferences, and education.

Conferences/Education. The society holds about 100 conferences each year and sponsors many educational activities, including computing science accreditation.

President:
DORIS L. CARVER *

*Louisiana State University
Dept. of Computer Science
294 Coates Hall
Baton Rouge, LA 70803
Ofc: (504) 388-3901
Ofc2: (504) 388-1495
F: (504) 388-1465
d.carver@computer.org*

President-Elect:
LEONARD L. TRIPP *

Past President:
BARRY JOHNSON *

VP, Press Activities:
I. MARK HAAS †

VP, Educational Activities:
WILLIS KING †

VP, Conferences and Tutorials:
GUYLAINE M. POLLOCK (1ST VP) *

VP, Membership Activities:
DAVID PESSER *

VP, Publications:
BENJAMIN W. WAH (2ND VP) *

VP, Standards Activities:
JAMES D. ISAAK *

VP, Technical Activities:
RONALD WAXMAN *

Secretary:
CARL K. CHANG *

Treasurer:
MICHEL ISRAEL *

IEEE Division V Director:
MARIO R. BARBACCI †

IEEE Division VIII Director:
LAUREL V. KALEDA †

Executive Director:
T. MICHAEL ELLIOTT †

* voting member of the Board of Governors
† nonvoting member of the Board of Governors

BOARD OF GOVERNORS

Term Expiring 1998: Elliot J. Chikofsky,
JoAnne E. DeGroat, Ted G. Lewis, David Pessel,
Benjamin W. Wah, Ronald Waxman,
Thomas W. Williams

Term Expiring 1999: Steven L. Diamond,
Richard A. Eckbouse, Gene F. Hoffnagle,
Tadao Ichikawa, James D. Isaak, Karl Reed,
Deborah K. Scherrer

Term Expiring 2000: Fiorenza C. Albert-Howard,
Paul L. Borrell, Carl K. Chang, Deborah M. Cooper,
James H. Cross, III, Ming T. Liu, Christina M. Schober

Next Board Meeting: 20 November 1998,
Los Angeles, California, USA

EXECUTIVE STAFF

Executive Director: T. MICHAEL ELLIOTT
Publisher: MATTHEW S. LOEB
Director, Volunteer Services: ANNE MARIE KELLY
Director, Finance & Administration: VIOLET S. DOAN
Director, Information Technology & Services: ROBERT G. CARE
Manager, Research & Planning: JOHN C. KEATON

COMPUTER SOCIETY OFFICES

Headquarters Office

1730 Massachusetts Ave. NW
Washington, DC 20036-1992
Phone: (202) 371-0101 • Fax: (202) 728-9614
E-mail: bq.ofc@computer.org

Publications Office

10662 Los Vaqueros Cir., PO Box 3014
Los Alamitos, CA 90720-1314
General Information:
Phone: (714) 821-8380

E-mail: membership@computer.org
Membership and Publication Orders:
Phone: (800) 272-6657
Fax: (714) 821-4641
E-mail: cs.books@computer.org

European Office

13, Ave. de L'Aquilon
B-1200 Brussels, Belgium
Phone: 32 (2) 770-21-98 • Fax: 32 (2) 770-85-05
E-mail: euro.ofc@computer.org

Asia/Pacific Office

Oosbima Building
2-19-1 Minami-Aoyama, Minato-ku, Tokyo 107
Japan
Phone: 81 (3) 3408-3118 • Fax: 81 (3) 3408-3553
E-mail: tokyo.ofc@computer.org

IEEE OFFICERS

President:
JOSEPH BORDOGNA

President-Elect:
KENNETH R. LAKER

Executive Director:
DANIEL J. SENESE

Secretary:
ANTONIO C. BASTAS

Treasurer:
BRUCE A. EISENSTEIN

VP, Educational Activities:
ARTHUR W. WINSTON

VP, Publications:
FRIEDOLF M. SMITS

VP, Regional Activities:
DANIEL R. BENIGNI

VP, Standards Activities:
L. JOHN RANKINE

VP, Technical Activities:
LLOYD A. MORLEY

President, IEEE-USA:
JOHN R. REINERT

